

**TWO NEW SPECIES AND NOTES ON OTHER BUPRESTIDAE (COLEOPTERA) FROM FIJI**

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**Abstract**

*Kurosawaia iridiotus* sp. n. and *Endelus bicolor* n. sp. are described from Fiji. Brief notes on *Endelus speculifer* Théry, *Nesotrinchus coeruleipennis* (Fairmaire) and *N. simondsi* Obenberger are given.

**Introduction**

The buprestid fauna of the Fiji islands is composed of an extremely interesting group of taxa. The islands are apparently the centre of distribution for some genera (e.g. *Paracupta* Deyrolle, *Nesotrinchus* Obenberger), representing the southern and/or eastern limits for several other large genera (e.g. *Chrysodema* Laporte and Gory, *Sambus* Deyrolle) and are also home to several relict taxa (e.g. *Euleptodema* Obenberger).

While a complete faunal revision is long overdue, a work of such scope is not possible at this time. The two new species described herein represent notable additions to the Fijian fauna, as both expand the known range of their respective genera.

*Kurosawaia* was erected for *Philanthaxia yanoi* Kurosawa by Toyama and Ohmomo (1985). *Endelus* Deyrolle is a large genus (80 + species) widely distributed throughout the Oriental Region, with species found from India to northeastern Australia and was last revised by Théry (1932).

Label data are recorded exactly with the abbreviations (p) for printed and (h) for handwritten. A slash mark (/) is used to separate data from individual labels. BMNH = British Museum (Natural History), London; BPBM = B.P. Bishop Museum, Honolulu; CLBC = my research collection and NZAC = New Zealand Arthropod Collection, Auckland.

***Kurosawaia iridiotus* sp. n. (Figs 1, 2)**

*Holotype* female (BPBM 14173): FIJI, Viti Levu, Nausori Highlands, 500-600 m, 9.ii.(19)71 (p)/ N.H.L. Krauss Collector (p).

*Diagnosis* Size (maximum length x width) 8.2 x 3.1 mm; elongate oval; flattened above; vertex, pronotum and basolateral portion of elytra reddish cupreous with slight greenish reflection; disc of elytra greenish cupreous; frons, apicolateral portion of elytra and underside black with bluish to purplish reflection.

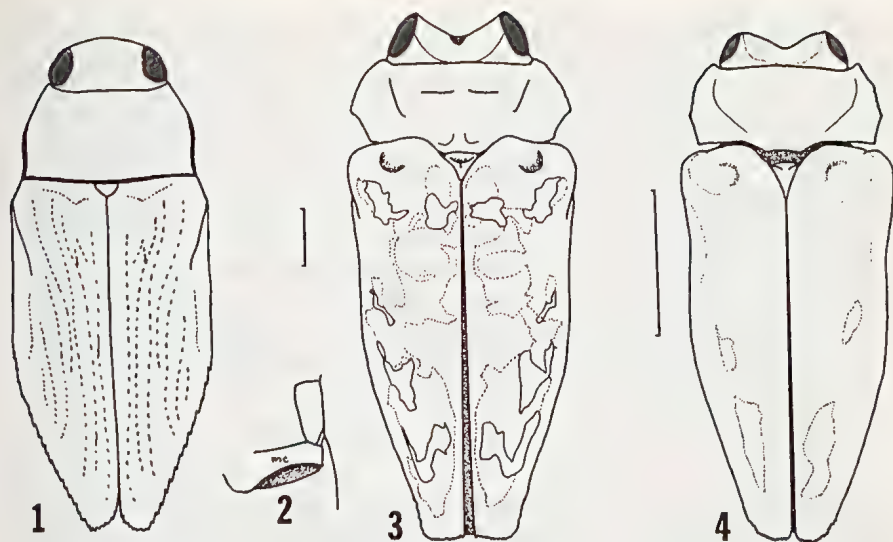
*Head*: vertex broadly convex; frons flattened; eyes large, inner margins subparallel; frontoclypeus foveolate between widely separated antennal cavities, apical margin arcuately emarginate; labrum coriaceous, testaceous, truncate distally, with stout recumbent testaceous setae apicolaterally; slight genal scrobe beneath eye for reception of basal antennomeres in repose; surface of head moderately coarsely punctate, more so on frons, each puncture with a slight recumbent white seta; *antennae* with scape geniculate basally, widest distally; antennomere 2 short; 3 - 11 elongate, subserrate, lengths decreasing distally; 11 ovoid, truncate distally; 3 - 11 moderately setose.

*Pronotum*: 1.8x wide as long, widest at middle; anterior margin truncate medially, arcuate laterally; basal margin feebly bisinuate; lateral margins bisinuate, constricted anterior to acute basal angles; marginal carina rounded, extending from base and slanting ventrally to anterior margin opposite slightly above ventral margin of eye; disc rounded convex laterally, slightly flattened medially; surface coarsely shallowly punctate with recumbent white setae. *Scutellum* cordiform; base feebly concave; black with blue reflection; feebly arcuately striate.

*Elytra* wider than pronotum, widest opposite humeri; sides subparallel from past constricted base, opposite humeri to slightly past middle, then attenuate to separately, roundly acuminate, slightly diverging apices; margin entire in basal 1/2, then with sharply acuminate serrations extending to inner face of separate apices; humeri round, moderately indicated; basal margin with broadly rounded transverse carina; disc flattened, striatopunctate; striae sinuate in basal 1/2, longitudinally parallel apically.

*Underside*: prosternum with anterior margin transverse, carinate; process with lateral lobes obtuse, rounded, with apex broadly, triangularly acuminate; metacoxal plate (Fig. 2) with posterior margin arcuately incised in lateral 2/3; abdominal sternites with suture between 2 and 3 transverse, between 3, 4 and 5 arcuate; apicolateral angles strongly acute, extending anteriorly past margin; sternite 5 with apex quadrispinose, distance between two medial spines less than between medial and lateral spines; surface with disc sparsely punctate, setose, more coarsely punctate laterally, with longer recumbent white setae.

*Legs*: femora dorsoventrally flattened, fusiform: protibiae shorter than profemora; mesotibiae slightly longer than mesofemora; metatibiae much longer than metafemora ( $> 1.3x$ ); tibiae straight, slightly swollen distally, armed with two short spines; tarsomeres 1 - 4 each with ventral pulvillus.



Figs 1-4. Figs 1, 2, *Kurosawaia iridinotus* sp. n.: Fig. 1, dorsal habitus; Fig. 2, lateral thoracic sternites, mc = metacoxal plate; Fig. 3, *Endelus bicolor* sp. n., dorsal habitus; Fig. 4, *E. speculifer* Théry (Scale bars = 1.0 mm and are equal for 1 and 2 and 3 and 4 respectively).

**Etymology.** The species name is from the Greek *iridos* (rainbow) and *notus* (the back) for the colourful upper surface.

### Discussion

I have compared the holotype of *K. iridinotus* with specimens of the generic type-species, *K. yanoi* (Kurosawa) from the Bonin Islands, Japan. *K. yanoi* is smaller, with the head and pronotum green and the elytra and underside cupreous with a faint purple tinge; the lateral margins of the pronotum are less constricted basally and less arcuate medially; the elytra are more densely setose with the setae arranged in paired longitudinal rows. These two species agree in all character states that were used by Toyama and Ohmomo (1985) to distinguish *Kurosawaia* from *Philanthaxia* Deyrolle, most importantly the number of serrate antennomeres and the quadrispinose 5th abdominal sternite. This last character suggests a relationship with the large Australasian genus *Melobasis* Laporte and Gory, while the character state of the metacoxal plate (Fig. 2) is similar to *Maoraxia* Obenberger and *Theryaxia* Carter.

### *Endelus bicolor* sp. n. (Fig. 3)

**Types:** Holotype female (BPBM 14174): FIJI, Vanua Levu I: Tabia (Thakaundrove), 0-2

m, 5.x.1979 (p)/214 (h)/S.N. Lal, G.A. & S.L. Samuelson Colls., Bishop Museum Acc. No. 1979.387 (p); *Paratypes*: 1 female, Viti Levu, Naduruloulou, 0-25 m, 26.ix.1979 (p)/ ferns (p)/ G.A. Samuelson Coll. Bishop Museum Acc. No. 1979.380 (p); 1 female, Kioa I: S coast to center, 0-60 m, 4.x.1979 (p)/ M.K. Kamath, S.N. Lal, G.A. & S.L. Samuelson Colls., Bishop Museum Acc. #1979.387. Paratypes in BPBM and CLBC.

*Diagnosis.* Size (maximum length x width): 4.0 x 1.6 mm; elongate ovoid, flattened; colour of head, middle of pronotum and some nearly glabrous portions of the elytral disc (Fig. 3: outside dotted lines) dark cupreous; lateral portions of pronotum and some of elytral disc (Fig. 3: within dotted lines) moderately shagreened, appearing brighter cupreous; remaining elytral surface (Fig. 3: within solid lines) shagreened with deep blue reflection; underside and legs very dark, nearly black; surface irregularly covered with large shallow punctures.

*Head*: frontovertex deeply excavate between widely separated eyes; eyes large, inner margins slightly diverging dorsally; median longitudinal groove of frontovertex with a single fovea at either end, distal end of groove confluent with supra-antennal grooves which extend laterally, on either side, almost to inner margin of eye; frontoclypeus longitudinally depressed, narrowed between antennal cavities; disc of clypeus a nearly ventrally facing inverted "Y", distal margin roundly emarginate; labrum not visible; genal scrobe beneath each eye; *antennae*: antennomere 2 globose; 3 narrower, shorter than 2; 4 shorter than 3; 5 subserrate; 6-10 serrate.

*Pronotum*: nearly 2x wider than long, widest at middle; anterior margin very slightly arcuate at middle; basal margin bisinuate on either side of narrow truncate prescutellar lobe; basal angles obtuse, rounded; lateral margins widening in an arc to widest point, then arcuately rounded to anterior margin; disc strongly gibbous in middle, on anterior 2/3's, width of swollen portion of disc slightly narrower than head; remainder of pronotum flattened, explanate laterally. *Scutellum*: nearly an equilateral triangle; disc slightly depressed behind anterior margin.

*Elytra*: slightly wider than pronotum opposite prominent humeri; one slight depression on either side between humerus and scutellum; basal angles rounded; lateral margins straight for short distance past humeri, narrowing slightly to before middle, then widening before becoming gradually attenuate prior to nearly rectangular, serrate apicolateral angles; margins carinate, separating epipleuron and disc from base to opposite 2nd abdominal sternite; sutural margins with feebly elevated costae; disc flattened with slight depressions and swellings, steeply declivous past humeri to middle laterally.

*Underside*: prosternum short, wide, process broad between procoxae, apex triangular; metepimeron hidden beneath epipleuron; metacoxal plate with posterior margins strongly arcuately emarginate; abdominal

sternites with suture between 1 and 2 only indicated laterally; length of 1+2 nearly 1.5x as long as 3+4+5; 5 with submarginal groove extending around entire perimeter, broadest apically.

*Legs:* femora fusiform, pro- and mesofemora flattened, posterior margin explanate dorsoventrally to hide tibiae and tarsi in repose; metafemora roundly fusiform, metatibiae and tarsi free in repose; metatibiae with setal comb on distal half of dorsal side; tarsomeres 1-4 short, each with pulvillus; 1-4 shorter together than 5; 5 narrow, elongate, claws swollen basally, tips widely separated.

*Variation.* The two female paratypes vary slightly in size: 3.7-3.9 x 1.4-1.6 mm but otherwise agree in all other aspects to the holotype.

*Etymology.* The name is for the dual colouration of the elytra.

### Discussion

Using the key from Théry's 1932 revision of *Endelus*, *E. bicolor* keys to *E. speculifer* Théry (Fig. 4), which was described in that work. *E. speculifer*, also from Fiji, differs by being narrower and more elongate; the colour is more aeneous overall and lacks the blue reflections; by having the frontovertex less deeply excavate; the pronotum is more widely gibbous, less widely explanate laterally and the lateral margins differ as illustrated.

### Notes on other Fijian Buprestidae

#### *Endelus speculifer* Théry

This species was described from a unique specimen with the locality listed simply as "Ovalau". This locality probably refers to the small island of Ovalau, which lies to the east of Viti Levu. Additional data on this species are: Viti Levu, Nandarivatu (p), ix.10.(19)38, 3700' (h)/ E.C. Zimmerman (p); specimens in BPBM and CLBC.

#### *Nesotrinchus coerulipennis* (Fairmaire)

As Bellamy (1987) recently indicated, most of material determined as this species in collections was, in fact, *N. orientalis* Bellamy. Of the material borrowed from BPBM at the time the latter species was described, only the single type specimen from Fiji from Fairmaire's collection was found. Additional material is from: Vanua Levu, Korovuli, 26.x.1977, G. Kushel, on *Agathis* log (p); specimens in NZAC and CLBC.

#### *Nesotrinchus simondsi* Obenberger

This taxon is the type species of the genus, with both genus and species described in the same work (1924). Théry (1925) stated that it was the same as *coeruleipennis*, while Obenberger (1926) argued that

his species was distinct. I have examined the holotype (BMNH) against all other material borrowed and have found one additional specimen which I have labelled as Homeotype, with the following locality information: Viti Levu, Nukurua Forest, 60-130 m, 15,x,1979 (p)/ forest (p)/ logged area (p)/ M/K/ Kamath, G.A. & S.L. Samuelson Colls, Bishop Museum Acc. #1979. (p) 260 (h) (BPBM).

The differences between these two species are slight but since this new locality data at least shows no overlap between islands, I will not propose any changes at this time. The most obvious differences are in colouration, with *N. simondsi* having the head, pronotum and underside nitid black with a slight aeneous reflection, while the elytra are shining deep blue. *N. coeruleipennis* has the head, pronotum and underside a bright aeneous with the elytra nearly purple on the basolateral 1/2, a reddish reflection along the suture and bluish black apically. There are other minor variations noted, such as the configuration of the spines of the elytral apices, the lateral margins of the pronotum and differences on the frontoclypeus, but further material of both species is needed to solve this question once and for all.

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